

# United States Patent and Trademark Office



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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov APPLICATION NO. FILING DATE FIRST NAMED INVENTOR

ATTORNEY DOCKET NO. CONFIRMATION NO. 10/023,783 12/17/2001 Rainer Kirchhuebel Missling Case 369 6621 7590 07/31/2003 David G. Boutell **EXAMINER** Flynn, Thiel, Boutell & Tanis, P.C. NGUYEN, THONG Q 2026 Rambling Road Kalamazoo, MI 49008-1699 ART UNIT PAPER NUMBER 2872

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary		Application No. Applicant(s)				
		10/023,783 KIRCHH		KIRCHHUEBEL ET	HUEBEL ET AL.	
		Examiner		Art Unit		
		Thong Q. Nguyer		2872		
The MAILING DATE of the Period for Reply	is communication app	ears on the cover	sheet with the co	rrespondence add	iress	
A SHORTENED STATUTORY THE MAILING DATE OF THIS  - Extensions of time may be available under after SIX (6) MONTHS from the mailing down the period for reply specified above is leterated in the period for reply is specified above, the Failure to reply within the set or extended Any reply received by the Office later than earned patent term adjustment. See 37 CStatus	COMMUNICATION.  r the provisions of 37 CFR 1.1: ate of this communication. ss than thirty (30) days, a reply he maximum statutory period v period for reply will, by statute three months after the mailing	36(a). In no event, howe y within the statutory mini vill apply and will expire S , cause the application to	ver, may a reply be timel mum of thirty (30) days v SIX (6) MONTHS from th become ABANDONED	y filed vill be considered timely e mailing date of this co (35 U.S.C. § 133).		
1) Responsive to commun	ication(s) filed on 19 /	May 2002 .				
2a) This action is FINAL.	2b)⊠ Th	is action is non-fi	nal.			
3) Since this application is closed in accordance wi					e merits is	
Disposition of Claims	dia - ia Ab - a - dii - di					
4)						
4a) Of the above claim(s)		om consideration.				
5) Claim(s) is/are allo						
6)⊠ Claim(s) <u>1,2,4-8 and 10-</u>						
7) Claim(s) <u>9,20 and 21</u> is/a						
8) Claim(s) are subject Application Papers	ect to restriction and/o	r election requirer	nent.			
9) The specification is object	·					
10)☐ The drawing(s) filed on			•			
Applicant may not request	· · ·	= : :				
11) The proposed drawing co				ed by the Examine	<b>}</b> r.	
If approved, corrected dra			ion.			
12) The oath or declaration is		aminer.				
Priority under 35 U.S.C. §§ 119 a						
13) Acknowledgment is made	_	n priority under 35	U.S.C. § 119(a)-	(d) or (t).		
a) ☐ All b) ☐ Some * c) ⊠						
	the priority document					
•	the priority document					
	fied copies of the prion the International Bu Office action for a list	reau (PCT Rule 1	7.2(a)).		Stage	
14) ☐ Acknowledgment is made	of a claim for domesti	c priority under 3	5 U.S.C. § 119(e)	(to a provisional	application).	
a) ☐ The translation of the 15)☐ Acknowledgment is made		• •				
Attachment(s)						
Notice of References Cited (PTO-89)     Notice of Draftsperson's Patent Draw     Information Disclosure Statement(s)	ring Review (PTO-948)	4)	Interview Summary ( Notice of Informal Pa Other:			
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## **DETAILED ACTION**

### Election/Restrictions

1. Applicant's election of Species (A) in Paper No. 7 of 5/23/2003 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

- 2. It is noted that in the Election made on 5/23/2003, applicant has requested that the species (A) and species (C) should be grouped together based on the structure of the lens(es) disposed between the holder and the eye, and the species 9B) is grouped separately from the set of Species mentioned above based on the structure of the lens disposed onto the eye. After further review the claims, the figures and the specification, the Examiner has agreed with the applicant's viewpoint. Thus, the restriction as set forth in the previous Office action is modified to include only two Species as follow:
  - Species (I) directs to the use of lens(es) between the holder and the eye as shown in figures 1-4, 7-11 and 13-16; and Species (II) directs to the use of the lens onto the eye as shown in figures 5-6 and 12.
- 3. Regarding to the claims readable from the mentioned Species (I) and (II), while it is noted that applicant has stated that the claims read from the Species (I) are claims 1-2 and 4-18. The Examiner has agreed with the selection of the claims as made by the applicant. However, claims 19-21 direct to the features of the prism elements and thus these claims 19-21 are also examined with the elected claims.

As a result, the claims to be examined in this Office action are claims 1-2 and

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4-21 and claim 3 has been withdrawn from further consideration as being directed to non-elected Species.

## **Priority**

4. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in German on 12/23/2000. It is noted, however, that applicant has not filed a certified copy of the German application as required by 35 U.S.C. 119(b).

## Drawings

5. The formal drawing contains fifteen sheets of figures 1-16 were received on 12/17/2001. These drawings are not approved by the Office draftsperson for the reasons as set forth in the attached form PTO-948.

## Specification

- 6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
- 7. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification fails to provide a proper antecedent basis for the arrangement of the swivel axle in a vertical manner on the microscope as recited in claim 7.
- 8. The disclosure is objected to because of the following informalities: a) The use of the numerical reference "5" for different items is improper. Applicant should use different

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numerical references for different items. See page 6, section [0027] and page 9, section [0035]; b) The description thereof "The same prism...43" provided in page 9, section [0036] is unclear with regard to the structure of the prism elements and the lens elements shown in figure 16. Appropriate correction is required.

## Claim Rejections - 35 USC § 112

- 9. The following is a quotation of the first paragraph of 35 U.S.C. 112:
  - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 10. Claims 4 and 13-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.
  - a) Claim 4 is rejected under 35 USC 112, first paragraph because the specification does not teach that the holder carrying the optical device for image reversion and image erection is movable in a guideway as recited in the feature thereof "the holder...guideway" (Claim 4, lines 2-4). Applicant is respectfully invited to review the specification, in particular, in pages 6-7. The housing (23) supporting the mentioned optical device for image reversion and erection is fastened to the holder (12) wherein the holder (12) is able to pivot about the swivel axle (13) which is stationary on the attachment (7). There is not any description/information which discloses that the holder (12) can move in a

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guideway provided in the present specification. Applicant should note that the element movable in a guide way is the carriage (14) supporting the optical device (8) which is used to provide/create a reversed image of an eye to be treated. See page 7, lines 3-20.

- b) Claim 13 is rejected under 35 USC 112, first paragraph for the similar reason as set forth in element a) above. In particular, the specification does not disclose that the first spindle drive is used to move the holder along the beam path. The first spindle drive is used to move the carriage (14) supporting the optical device for creating a reversed image of an eye to be treated. See page 7, lines 3-20.
- c) The remaining claims are dependent upon the rejected base claim and thus inherit the deficiencies thereof.
- 11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

  The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 12. Claims 7, 10-12 and 14-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - a) Claim 7 is indefinite because the feature "the swivel axle" (line 2) lacks a proper antecedent basis. Applicant should note that claim 4 (lines 2-3), not claim 1, recites a swivel axle.
  - b) Claim 10 is indefinite for the following reasons: 1) The feature "the optical devices" (line 2) lacks a proper antecedent basis. Applicant should note that the optical devices for wide-angle viewing and for adjusting the focus are the optical

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device (8) and the optical device (34), respectively (See specification in page 7, section [0028] and page 8, section [0034]) which are recited in claim 9/8, not claim 8; and 2) the feature "the intermediate image" (lines 2-3) lacks a proper antecedent basis. Further, what does applicant means by saying that an optical device for the intermediate image as read from the feature thereof "the optical devices for wide-angle viewing and/or for the intermediate image" (lines 2-3)?

c) Claim 11 is indefinite by the recitation thereof "a Porro prism...prism system" (lines 1-3). In particular, it is unclear what does applicant mean by "a reflecting prism according to Uppendahl" (lines 2-3)?

- d) Claim 12 is indefinite by the recitation thereof "a reflecting prism...prism system" (lines 1-3). In particular, it is unclear what does applicant mean by "a reflecting prism according to Schmidtpechan" (lines 1-2)?
- e) Claim 14 is indefinite because each of the features "the first spindle drive" (lines 4-5) and "the threaded spindle" (lines 6-7) lacks a proper antecedent basis.
- f) Claim 15 is indefinite because each of the features "the additional optical device" (line 2) and "the intermediate image" (lines 4-5) lacks a proper antecedent basis. The claim is also unclear because it is unclear abut the structural relationships among the first guide pin and the second guide pin, both recited in claim 15, and the guide pin recited in its base claim 14. In other words, how many guide pins being used in the device claimed in claim 15/14?
- g) The remaining claims are dependent upon the rejected base claim and thus inherit the deficiencies thereof.

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## Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 14. Claims 1, 4-7, 13 and 19, as best as understood, are rejected under 35
- U.S.C. 102(b) as being anticipated by Volk (U.S. Patent No. 5,526,074).

Volk discloses a full field reinverting indirect contact ophthalmoscope. The system as described in column 6 and shown in figure 6 comprises two optical devices (12 and 16"") disposed between a lens (18) of a microscope (20) and an eye to be treated (14). The two optical devices comprises a first optical device (12) which creates a reversed image (see columns 4-5) and a second optical device (16) comprises an image reversion and erection system consists of a prism system having two prisms in the form of Porro prism elements (100 and 102). It is inherently that the prism elements are supported by a housing having openings for permitting light entering and emerging the housing as can be seen in the arrangement of the prism elements shown in figure 6. See also element (42) of the embodiment disclosed in figure 2. While column 6 and fig. 6 does not clearly shown that the device (16") is supported by a holder; however, such use of a holder for supporting the optical device (16") is inherently disclosed because the use of a holder for supporting a similar device (16) is disclosed in columns 6-7 and shown in figure 4. The mechanism supporting the optical device (16)

comprises a clamp (66) supporting the device (16) and pivotable about a swivel axle defined by the ball-and-socket (70) supported on a movable rod (72). The rod (72) is movable with respect to the guide rod (68) which is in turn pivotally supported by a system having ball-and-socket (86), etc... See columns 6-7. With regard to the feature relating to the dimension of the device for reversion and erection image as recited on lines 8-9 of claim 1, such a feature without specific limitations relating to the specific height of the prism system is readable from the art of Volk. With regard to the use of a projection lens between the prism elements and the lens of the microscope, Volk discloses the use of a lens (64) for adjusting the optical path length. See column 7, lines 46+. With regard to the feature relating to the holder as recited in claim 13, such a recitation is understood as the one supporting the second optical device which does the reverse and erect the image.

### Claim Rejections - 35 USC § 103

- 15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 16. Claims 11 and 12, as best as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Volk in view of Schirmer (U.S. Patent No. 4,015,898) and Twisselmann (German reference No. DE 35 39 009).

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The device as provided by Volk does not suggest the use of different kind of prism elements such as Porro of the second type or a reflecting prism in the form of Uppendahl or a reflecting prism in the form of Schmidtpechan for reversion and erection the image; however, such use of the recited kind of prism system is merely that of a preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present specification in which applicant has admitted that a plurality of different types of prism system can be sued for the reversion and erection an image. Further, the use of conventional types of prism system including the Pechan, the Uppendahl, the Abbe or a combination thereof is considered as an obvious matter to one skilled in the art due to the convenience and/or requirements of a particular design. For instance, the use of a set of prism elements in the form of Uppendahl system in a microscope is suggested to one skilled in the art as can be seen in the system provided by Schirmer. See column 3. The use of a set of prism elements in the form of Schmidtpechan or modified Abbe system in a microscope is suggested by Twisselmann. See columns 3-4 and figs.3-4. Thus, absent any showing of criticality and specific limitations of the prism system recited in the claim(s), it would have been obvious to one skilled in the art at the time the invention was made to utilize any suitable prism system known to one skilled in the art as suggested by Schirmer and/or Twisselmann in the microscope of Volk for the purpose of reversion and erection an image to satisfy a particular/designed application.

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17. Claims 1-2, 8, 13-14 and 19, as best as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as described in columns 2-3 and shown in figure 1 of the Patent issued to Luloh (U.S. Patent No. 5,793,524) in view of Reiner (U.S. Patent No. 5,009,487, submitted by applicant).

The prior art as described in columns 2-3 and shown in figure 1 of the Patent '524 discloses an optical device for non-contact wide-angle viewing of fundus. The system comprises a wide-angle lens system (22) supported by a carriage (30) which is able to move along an optical path of the microscope via the guide pin (32) and the threaded pin (34). It is also noted that the lens is attached to the carriage (30) via a telescopic tubes (26 and 28) which allows the movement of the lens along the optical path. The holder (12) also comprises an adapter (18) for attaching the holder to the microscope wherein a reduction lens (20) is provided. The device provided by the prior art does not disclose the use of an image reversion and erection system between the lens (22) and the microscope (10) for reversing and erecting the image provided by the lens (22). However, the use of an image reversion and erection system between a lens for reversed an image of an eye and a microscope is clearly known and suggested to one skilled in the art as can be seen in the system provided by Reiner. For instance, in the embodiment described in column 7 and shown in figure 5, Reiner suggested the use of an image reversion and erection system (19) between an eye to be treated (26) and a microscope (1) wherein the prism system is able to remove from the optical path of the microscope via a conventional prism moving

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mechanism. Column 7, lines 35+. Thus, it would have been obvious to one skilled in the art to modify the microscope having an optical lens disposed in front of a microscope as provided by the prior art described in columns 2-3 and shown in figure 1 of the Patent'524 by installing an image reversion and erection prism system between the lens and the microscope as suggested by Reiner for the purpose of reversing and erecting the image provided by the lens.

18. Claims 11-12, as best as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art described in columns 2-3 and shown in figure 1 of the Patent 5,793,524 in view of Reiner as applied to claim 1 above, and further in view of Schirmer (U.S. Patent No. 4,015,898) and Twisselmann (German reference No. DE 35 39 009).

The device as provided by Volk does not suggest the use of different kind of prism elements such as Porro of the second type or a reflecting prism in the form of Uppendahl or a reflecting prism in the form of Schmidtpechan for reversion and erection the image; however, such use of the recited kind of prism system is merely that of a preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present specification in which applicant has admitted that a plurality of different types of prism system can be sued for the reversion and erection an image. Further, the use of conventional types of prism system including the Pechan, the Uppendahl, the Abbe or a combination thereof is considered as an obvious matter to one skilled in the art due to the convenience and/or requirements of a particular design. For instance, the use of

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a set of prism elements in the form of Uppendahl system in a microscope is suggested to one skilled in the art as can be seen in the system provided by Schirmer. See column 3. The use of a set of prism elements in the form of Schmidtpechan or modified Abbe system in a microscope is suggested by Twisselmann. See columns 3-4 and figs.3-4. Thus, absent any showing of criticality and specific limitations of the prism system recited in the claim(s), it would have been obvious to one skilled in the art at the time the invention was made to utilize any suitable prism system known to one skilled in the art as suggested by Schirmer and/or Twisselmann in the microscope of Volk for the purpose of reversion and erection an image to satisfy a particular/designed application.

## Allowable Subject Matter

- 19. Claims 9 and 20-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 20. Claims 15-18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
- 21. The following is an examiner's statement of reasons for allowance:
- a) The device as claimed in each of claims 9/8/1 and 15/14/13/1 patentable with respect to the cited art by the limitations relating to the use of an additional optical device movable lengthwise of a beam path and relative to the prism system wherein the

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additional optical device is provided between an optical device for creating a reversed image of the fundus of an eye and an optical device having prism system for image reversion and erection which device is supported by a holder so as to be moved or swung into the beam path of the microscope.

b) The device as claimed in claim 20/1 is patentable with respect to the cited art by the arrangement of the prism system for image reversion and erection. While the use of different kind of prism systems is known to one skilled in the art; however, the cited art does not disclose the use of an image erecting prism system having the feature thereof "two prisms...face one another" (claim 20, lines 2-8) in a system comprises an optical device for creating a reversed image of the fundus of an eye and an optical device having prism system for image reversion and erection which device is supported by a holder so as to be moved or swung into the beam path of the microscope.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references are cited as of interest in that each discloses a microscope having a lens system removably disposed in front of the microscope.

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23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (703) 308-4814. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on (703) 305-0024. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

Thong Q. Nguyen Primary Examiner Art Unit 2872

July 15, 2003